CLAIM SUMMARY

1. (Cancelled)

2. (Currently Amended) The radio according to Claim 10, including a frequency synthesizer connected to the oscillator and providing different frequency signals to the first and second channels.

3. (Currently Amended) The radio according to Claim 10, including a third channel for receiving and transmitting signals at a third carrier frequency and connected to the multiplexer.

4. (Original) The radio according to Claim 3, including a frequency synthesizer connected to the oscillator and providing different frequency signals to the first, second and third channels.

5. (Original) The radio according to Claim 3, wherein the processor performs communication protocols for at least two of the channels simultaneously.

6. (Currently Amended) The radio according to Claim 1, wherein the processor performs communication protocols for the first and second channels simultaneously.

7. (Currently Amended) The radio according to Claim 10, wherein the first channel is designed to receive GPS signals, and the second channel is designed to receive signals from the group of WLAN, Blue Tooth, GSM, GPRS and WCDMA.

8. (Currently Amended) The radio according to Claim 10, wherein the radio is a software-defined radio.

9. (Cancelled)

10. (Previously Presented) A radio comprising:

a first channel for receiving signals at a first carrier frequency;

a second channel for receiving and transmitting signals at a second carrier frequency;

a multiplexer connected to the first and second channels;

an A/D converter and a D/A converter connecting the channels through the multiplexer to a digital signal processor;

an oscillator connected to and providing a common sampling rate to the A/D and D/A converters;

the digital signal processor controlling the multiplexer and modifying received and transmitted digital signals using the common sampling rate to accommodate for the different carrier frequencies by linear interpolation of the sampling rate; and.

wherein the linear interpolation for each interpolated sample Y_n, at the desired sampling rate T_0, is calculated from two samples X_{n+1}, X_n at the common sampling rate T_s as:

$$Y_n=X_n+ n (T_0-T_s)/T_s(X_{n+1}-X_n)$$

where n is an integer.